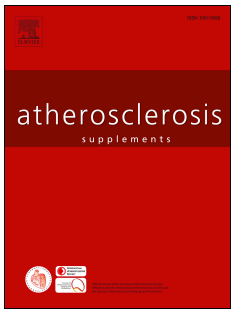
Accepted Manuscript



Impact of double filtration plasmapheresis on adhesion molecules levels in patients with stable coronary heart disease after coronary stenting

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PII: S1567-5688(17)30066-1

DOI: 10.1016/j.atherosclerosissup.2017.05.024

Reference: ATHSUP 316

To appear in: *Atherosclerosis (Supplements) (Component)*

Please cite this article as: Tishko VV, Sokolov AA, Belskih AN, Ivanov AM, Meshkova ME, Skorinova TS, Impact of double filtration plasmapheresis on adhesion molecules levels in patients with stable coronary heart disease after coronary stenting, *Atherosclerosis (Supplements) (Component)* (2017), doi: 10.1016/j.atherosclerosissup.2017.05.024.

Impact of double filtration plasmapheresis on adhesion molecules levels in patients with stable coronary heart disease after coronary stenting

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Abstract

Objective and methods: Endothelial dysfunction and inflammatory reaction at the site of damage plays a key role in the formation of neointimal hyperplasia, and in the progression of atherosclerosis. The initiating role in these processes is assigned to adhesion molecules. We studied the dynamics of the level of adhesion molecules soluble intercellular adhesion molecule-1 (sICAM-1), soluble vascular adhesion molecule-1 (sVCAM-1), soluble form of the molecule platelet adhesion and endothelial type-1 (sPECAM-1), sL-, sP-, sE-selectins during double filtration plasmapheresis (DFPP) with use of plasma fractionators (PF) Cascadeflo EC-50W and EC-40W (Asahi Kasei Medical Co., Japan) in patients with stable coronary heart disease and hyperlipidemia-(a) in the early post-implantation period after coronary stenting.

Results: DFPP reduces the level of plasma adhesion molecules. When using PF Cascadeflo EC- 40W, a more pronounced decrease occurs. The rejection coefficient (RC) of adhesion molecules has been identified for these PF. These RCs reflect the immediate removal efficiency of adhesion molecules in the perfusion of plasma through PF. The removal effectiveness of adhesion molecules when using PF Cascadeflo EC- 40W is higher than when using the PF Cascadeflo EC- 50W (sICAM-1 - 2.5 times , sVCAM-1 - 2.2 times , sPECAM-1.6 times , sL- selectin - 5 times , sP- selectin - 2.8 times , sE - selectin - 3 times).